Claims:

1. A microscope comprising:

a head portion including an objective;

a base portion having a stage mounted thereto;

a C-shaped frame connecting the head portion and base portion; and

two curvilinear braces connecting the head portion to the base portion.

2. A microscope according to claim 1, wherein the braces are mounted to the sides of the C-shaped frame so as to enable frontal access to the stage.

3. A microscope according to claim 1, wherein each brace is disposed generally parallel to a vertical optical axis of the microscope.

4. A microscope according to claim 1, wherein each brace comprises a composite of different materials or sandwiched layers of different materials.

5. A microscope according to claim 1, wherein each brace has a resonant frequency that is not a harmonic or sub-harmonic of the fundamental frequency of vibration of the C-shaped frame.

6. A microscope according to claim 1, including means for coupling the two braces together and forcing the braces closer together or further apart, thereby adjusting the distance between the objective and the stage.

7. A microscope according to claim 6, wherein a hydraulic cylinder is used to couple the braces together and selectively force the braces closer or further apart.

8. A Microsope according to claim 6, wherein a piezoelectric strut or a piezoelectric layer in a strut is used to couple the braces together and selectively force the braces closer or further apart.

9. A microscope according to claim 1, including means for altering the length of said braces, thereby adjusting the distance between the objective and the stage.

10. A microscope according to claim 9, wherein each brace includes a piezoelectric layer therein for altering the length of the brace.

11. A method of operating a microscope comprising a head portion having an objective mounted thereto and a base portion having a stage mounted thereto, the method comprising:

attaching at least one brace between the head portion and the base portion;

selectively adjusting the distance between the objective and the stage by varying the length of the brace along a vertical optical axis of the microscope.

12. A method according to claim 11, wherein the length of the brace along the vertical optical axis is adjusted by expanding or contracting the overall length of the brace.

13. A method according to claim 12, wherein the brace includes a piezoelectric layer, the thickness of which can be varied by the application of an applied voltage.

14. A method according to claim 11, wherein the length of the brace along the vertical optical axis is adjusted by forcing the brace to move in a direction transverse to the vertical optical axis.

15. A method according to claim 11, wherein two braces connect the head portion to the base portion.

16. A method according to claim 15, wherein the braces are forced to move in a direction transverse to the vertical optical axis by one of:

a hydraulic cylinder coupled between the braces; or

a piezoelctric strut or a piezoelectric layer in a strut coupled between the braces.

17. A method according to claim 15, wherein each brace is curvilinear in shape.

18. A method according to claim 17, wherein the microscope includes a C-shaped frame connecting the head portion and base portion, and the braces are mounted to the side of the C-shaped frame, thereby enabling frontal access to the stage.